#### **ENVIRONMENTAL CHEMISTS**

Date of Report: 12/09/99 Date Received: 12/02/99

Project: Metro Self Monitor, PO# M63130

Date Samples Extracted: 12/08/99 Date Extracts Analyzed: 12/08/99

### RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

#### Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID	Chromit	ım <u>Cop</u>	<u>per</u> <u>Nicke</u>	$\underline{\mathbf{Zinc}}$
M63130	0.12	0.	16 0.13	0.05
Method Blank	< 0.05	<0.	05 <0.05	< 0.05

#### **ENVIRONMENTAL CHEMISTS**

Date of Report: 12/09/99 Date Received: 12/02/99

Project: Metro Self Monitor, PO# M63130

### QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 911153-01 (Duplicate)

					Kelativ	9	
		Reporting	Sample	Duplicat	te Percen	t Acceptar	ice
Analyte	Table 1	Units	Result	Result	Differen	ce Criteri	a
Chromium		mg/L (ppm)	0.12	0.15	22 a	0-20	
Copper		mg/L (ppm)	0.16	0.15	6	0-20	
Nickel		mg/L (ppm)	0.13	0.15	14	0-20	
Zinc		mg/L (ppm)	0.05	0.05	0	0-20	

Laboratory Code: 911053-01 (Matrix Spike)

	Reporting	Spike	Sample	% Recovery	% Recover	y Acceptance		
Analyte	Units	Level	Result	MS	MSD	Criteria	RPD	
Chromium	mg/L (ppm)	5	0.12	116	115	80-120	1	7.
Copper	mg/L (ppm)	5	0.16	104	106	80-120	<b>2</b>	
Nickel	mg/L (ppm)	10	0.13	115	113	80-120	2	
Zinc	mg/L (ppm)	5	0.05	124 vo	120	80-120	3	

Laboratory Code: Laboratory Control Sample

	Reporting	Spike	% Recover	y % Recove	ery Acceptance	9	
Analyte	Units	Level	LCS	LCSD	Criteria	RPI	)
Chromium	mg/L (ppm)	5	120	116	80-120	3	
Copper	mg/L (ppm)	5	117	113	80-120	3	
Nickel	mg/L (ppm)	10	111	116	80-120	4	
Zinc	mg/L (ppm)	5	122 vo	119	80-120	2	

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

vo - The value reported fell outside the control limits established for this analyte.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

DH 12/2/99 AI,

## SAMPLE CHAIN OF CUSTODY

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10/26/99

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

December 9, 1999

#### **DUPLICATE COPY**

#### **INVOICE #99ACU1209-1**

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor Grab-PO# M63130: Results of testing requested by Gerry Thompson for material submitted on December 2, 1999.

1 water sample analyzed for Chromium, Copper, Nickel, and Zinc using Method 6010 @ \$80 per sample \$80.00

Amount Due \$80.00

PLEASE NOTE: As a convenience for our valued clients, we can accept credit cards (VISA, MasterCard or government purchasing cards) for payment on our invoices. Please contact our office if you would like to take advantage of this service.

FEDERAL TAX ID #(b) (6)

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

December 9, 1999

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on December 2, 1999 from your Metro Self Monitor, PO# M63130 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Dianne Chat

Dianne C. Hurt Project Manager

Enclosures ACU1209R.DOC